

Department of Energy Nuclear Science User Facilities Awards Nine Rapid Turnaround Research Proposals

IDAHO FALLS -- The U.S. Department of Energy (DOE) Nuclear Science User Facilities (NSUF) has selected nine new rapid turnaround experiment (RTE) projects, totaling up to \$450,000. These projects will advance research in nuclear fuels and help extend the lifetime of structural components in nuclear systems.

The NSUF, first established at the Idaho National Laboratory (INL), is the nation's only designated nuclear energy user facility. NSUF provides research teams with cost-free access to reactor, post-irradiation examination and beamline capabilities at a diverse mix of affiliated partner facilities in university, national laboratory and industry institutions across the country.

NSUF competitively selected the nine RTE projects from a pool of 17 high quality proposals submitted during the solicitation period. Each proposal was evaluated based on a variety of factors including feasibility, programmatic relevance and scientific-technical merit. All reviews were then passed through a panel committee before the proposals were placed in their final ranking positions.

Research teams from INL, Virginia Commonwealth University, Los Alamos National Laboratory, University of California-Santa Barbara, University of Michigan, University of Florida, Australian Nuclear Science and Technology Organization, and Argonne National Laboratory will work with the NSUF on their proposed experiments. The newly awarded RTE projects are:

PI Name	Institution	Title	Facility
Wen, Haiming	Idaho National Laboratory	STEM/EELS Study of Fission Product Transport in Neutron Irradiated TRISO Fuel Particles	CAES
Rojas Marin, Jessika	Virginia Commonwealth University	Proton beam irradiation study of UHTC zirconium diboride (ZrB ₂)	Wisconsin Ion Beam
Saleh, Tarik	Los Alamos National Laboratory	Nanohardness Measurements on Neutron Irradiated Steel Samples for Next Generation Reactors	U.C. Berkeley
Odette, G. Robert	University of California - Santa Barbara	Investigation of dislocation loop hardening and stability in irradiated RPV steels	CAES
Marquis, Emmanuelle	University of Michigan	Nanoscale solute clusters and α' precipitates in irradiated Fe-Cr alloys neutron irradiated at 290C	CAES

Yang, Yong	University of Florida	Characterize Neutron Irradiated NF709 Stainless Steel Using Atom Probe Tomography	CAES
Bhattacharyya, Dhriti	Australian Nuclear Science and Technology Organization	A study of the microstructural and mechanical effects of neutron irradiation dose and temperature on a series of Fe-Cr alloys	CAES
Odette, G. Robert	University of California - Santa Barbara	A Bootstrapping Approach to Optimizing the Fidelity of Ion Versus Neutron Irradiations	U.C. Berkeley
Ye, Bei	ANL - Argonne National Laboratory	Microstructure Characterization of High-Energy-Xe-Ion-Irradiated U-Mo	CAES

The NSUF reviews RTEs three times per year. The call is open to any interested researcher from a university, national laboratory or industry. Each RTE is not to exceed \$50,000 and the awards offer researchers the opportunity to perform short-term analyses of a limited scope of work, use of an ion beam or use of the North Carolina State University PULSTAR reactor. The nine RTE awards being announced today were submitted during the previous call, which began in February 2015 and closed in May 2015. The next call for solicitations is currently open and scheduled to close September 30, 2015.

For user guides and more information about submitting proposals, visit the NSUF website at <http://nsuf.inl.gov>.

INL is a DOE multiprogram national laboratory, and performs work in each of DOE's strategic goal areas: energy, national security, science and environment. INL is the nation's leading center for nuclear energy research and development. Day-to-day management and operation of the laboratory is the responsibility of Battelle Energy Alliance.

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